

D. Johnson
OIVE 02 DO
7-17-00
Law Sequence Editing

Serial Number: 09/551,380

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: _____
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☐ Corrected an obvious error in the response, specifically: _____
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☒ Other: Seq 2,6 - added <220>

*Examiner: ~~The above~~ corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

RAW SEQUENCE LISTING DATE: 05/09/2000
 PATENT APPLICATION: US/09/551,380 TIME: 18:58:43

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\05092000\I551380.raw

```

3 <110> APPLICANT: CHANG, Donald C
4      LUO, Qian
6 <120> TITLE OF INVENTION: Modified Fluorescent Proteins
8 <130> FILE REFERENCE: M99/0321/US
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/551,380
C--> 11 <141> CURRENT FILING DATE: 2000-04-18
13 <160> NUMBER OF SEQ ID NOS: 32
15 <170> SOFTWARE: PatentIn Ver. 2.1
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 39
19 <212> TYPE: DNA
20 <213> ORGANISM: Artificial Sequence
22 <220> FEATURE:
23 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
25 <220> FEATURE:
26 <221> NAME/KEY: CDS
27 <222> LOCATION: (3)..(38)
29 <400> SEQUENCE: 1
30 ct cca att ggc gat gaa gtc gac ggc cct gtc ctt tta c           39
31   Pro Ile Gly Asp Glu Val Asp Gly Pro Val Leu Leu
32     1             5             10
35 <210> SEQ ID NO: 2
36 <211> LENGTH: 12
37 <212> TYPE: PRT
38 <213> ORGANISM: Artificial Sequence
W--> 39 <220> FEATURE:
40 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
42 <400> SEQUENCE: 2
43 Pro Ile Gly Asp Glu Val Asp Gly Pro Val Leu Leu
44   1             5             10
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 39
50 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
56 <400> SEQUENCE: 3
57 gtaaaaggac agggccgctcg acttcacgc caattggag           39
60 <210> SEQ ID NO: 4
61 <211> LENGTH: 4
62 <212> TYPE: PRT
63 <213> ORGANISM: Homo sapiens
65 <400> SEQUENCE: 4
66 Asp Glu Val Asp
67   1
70 <210> SEQ ID NO: 5
71 <211> LENGTH: 720

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72 <212> TYPE: DNA
73 <213> ORGANISM: Artificial Sequence
75 <220> FEATURE:
76 <221> NAME/KEY: CDS
77 <222> LOCATION: (1)..(714)
79 <220> FEATURE:
80 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
81     cleavage site
83 <400> SEQUENCE: 5
84 atg agt aaa gga gaa gaa ctt ttc act gga gtt gtc cca att ctt gtt    48
85 Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
86    1                    5                    10                    15
88 gaa tta gat ggt gat gtt aat ggg cac aaa ttt tct gtc agt gga gag    96
89 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
90                    20                    25                    30
92 ggt gaa ggt gat gca aca tac gga aaa ctt acc ctt aaa ttt att tgc    144
93 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
94                    35                    40                    45
96 act act gga aaa cta cct gtt cca tgg cca aca ctt gtc act act ttc    192
97 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
98    50                    55                    60
100 act tat ggt gtt caa tgc ttt tca aga tac cca gat cat atg aaa cag    240
101 Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
102    65                    70                    75                    80
104 cat gac ttt ttc aag agt gcc atg ccc gaa ggt tat gta cag gaa aga    288
105 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
106                    85                    90                    95
108 act ata ttt ttc aaa gat gac ggg aac tac aag aca cgt gct gaa gtc    336
109 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
110                    100                    105                    110
112 aag ttt gaa ggt gat acc ctt gtt aat aga atc gag tta aaa ggt att    384
113 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
114                    115                    120                    125
116 gat ttt aaa gaa gat gga aac att ctt gga cac aaa ttg gaa tac aac    432
117 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
118                    130                    135                    140
120 tat aac tca cac aat gta tac atc atg gca gac aaa caa aag aat gga    480
121 Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
122    145                    150                    155                    160
124 atc aaa gtt aac ttc aaa att aga cac aac att gaa gat gga agc gtt    528
125 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
126                    165                    170                    175
128 caa cta gca gac cat tat caa caa aat act cca att ggc gat ggc cct    576
129 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
130                    180                    185                    190
132 gtc ctt tta cca gac aac cat tac ctg tcc aca caa tct gcc ctt tcg    624
133 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
134                    195                    200                    205
136 aaa gat ccc aac gaa aag aga gac cac atg gtc ctt ctt gag ttt gta    672

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137 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
138      210      215      220
140 aca gct gct ggg att aca cat ggc atg gat gaa cta tac aaa taataa      720
141 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
142 225      230      235
145 <210> SEQ ID NO: 6
146 <211> LENGTH: 238
147 <212> TYPE: PRT
148 <213> ORGANISM: Artificial Sequence
W--> 149 <220> FEATURE:
150 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
151      cleavage site
153 <400> SEQUENCE: 6
154 Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
155      1      5      10      15
157 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
158      20      25      30
160 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
161      35      40      45
163 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
164      50      55      60
166 Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
167      65      70      75      80
169 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
170      85      90      95
172 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
173      100      105      110
175 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
176      115      120      125
178 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
179      130      135      140
181 Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
182      145      150      155      160
184 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
185      165      170      175
187 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
188      180      185      190
190 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
191      195      200      205
193 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
194      210      215      220
196 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
197 225      230      235
201 <210> SEQ ID NO: 7
202 <211> LENGTH: 4
203 <212> TYPE: PRT
204 <213> ORGANISM: Homo sapiens
206 <400> SEQUENCE: 7
207 Tyr Val His Asp

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Input Set : A:\Pto.amc
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208 1
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212 <211> LENGTH: 4
213 <212> TYPE: PRT
214 <213> ORGANISM: Artificial Sequence
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
218     cleavage site
220 <400> SEQUENCE: 8
221 Asp Glu His Asp
222 1
225 <210> SEQ ID NO: 9
226 <211> LENGTH: 4
227 <212> TYPE: PRT
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
232     cleavage site
234 <400> SEQUENCE: 9
235 Trp Glu His Asp
236 1
239 <210> SEQ ID NO: 10
240 <211> LENGTH: 4
241 <212> TYPE: PRT
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
246     cleavage site
248 <400> SEQUENCE: 10
249 Leu Glu His Asp
250 1
253 <210> SEQ ID NO: 11
254 <211> LENGTH: 4
255 <212> TYPE: PRT
256 <213> ORGANISM: Homo sapiens
258 <400> SEQUENCE: 11
259 Val Glu Ile Asp
260 1
263 <210> SEQ ID NO: 12
264 <211> LENGTH: 4
265 <212> TYPE: PRT
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
270     cleavage site
272 <400> SEQUENCE: 12
273 Leu Glu Thr Asp
274 1
277 <210> SEQ ID NO: 13

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Input Set : A:\Pto.amc
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278 <211> LENGTH: 4
279 <212> TYPE: PRT
280 <213> ORGANISM: Artificial Sequence
282 <220> FEATURE:
283 <223> OTHER INFORMATION: Description of Artificial Sequence: Caspase
284        cleavage site
286 <400> SEQUENCE: 13
287 Leu Glu His Asp
288    1
291 <210> SEQ ID NO: 14
292 <211> LENGTH: 3
293 <212> TYPE: PRT
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
298        cleavage site
300 <400> SEQUENCE: 14
301 Glu Val Asp
302    1
305 <210> SEQ ID NO: 15
306 <211> LENGTH: 3
307 <212> TYPE: PRT
308 <213> ORGANISM: Artificial Sequence
310 <220> FEATURE:
311 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
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314 <400> SEQUENCE: 15
315 Asp Glu Val
316    1
319 <210> SEQ ID NO: 16
320 <211> LENGTH: 4
321 <212> TYPE: PRT
322 <213> ORGANISM: Artificial Sequence
324 <220> FEATURE:
325 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
326        cleavage site
328 <400> SEQUENCE: 16
329 Asp Glu Asp Asp
330    1
333 <210> SEQ ID NO: 17
334 <211> LENGTH: 5
335 <212> TYPE: PRT
336 <213> ORGANISM: Artificial Sequence
338 <220> FEATURE:
339 <223> OTHER INFORMATION: Description of Artificial Sequence: Possible
340        cleavage site
342 <400> SEQUENCE: 17
343 Asp Glu Val Asp Gly
344    1                      5

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VERIFICATION SUMMARY DATE: 05/09/2000
PATENT APPLICATION: US/09/551,380 TIME: 18:58:44

Input Set : A:\Pto.amc
Output Set: N:\CRF3\05092000\I551380.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:39 M:283 W: Missing Blank Line separator, <220> field identifier
L:149 M:283 W: Missing Blank Line separator, <220> field identifier